Better Shots for the Future of Hunting

Story and Photos by Ron Wilson

On a spring day better suited for hunkering over duck decoys, waterlogged shotgunners dressed mostly in camouflage raingear shot repeatedly at left-to-right flying clay targets that mimicked the speed – certainly not the size – of passing waterfowl.

The first go-round, without the temperate teaching of an ace shotgunning instructor passing tips between blasts of steel shot, just six of 20 shooters passed muster, hitting six of eight speeding orange orbs at 20 yards.

From where you stood, the task didn't seem that difficult. Heck, you convinced yourself, if you were shouldering your trusty 12-gauge, it wouldn't be thin soup in your camp tonight, so to speak.

Photo Omitted

Yeah, whatever.

"From a sports science perspective, shooting a shotgun is up there as one of the most difficult athletic things to do," said Tom Roster, independent shotshell ballistics expert from Klamath Falls, Oregon. "Everyone has a different laundry list of sins they commit when shooting. We'll work on those sins, and when you leave here today, my goal will be to have you hitting six of eight (clay targets) at 30 yards."

Sixteen of the 20 shooters met that goal by day's end.

In May, Roster headed the Cooperative North American Shotgunning Education Program seminar and workshop in Jamestown, where participants were instructed in nontoxic shotshell ballistics, load/choke selection, range estimation, hunting and shooting skills and the importance of proper patterning.

CONSEP is an international research and education program that helps hunters and shooters effectively use nontoxic shot, efficiently harvest birds, reduce wounding loss of ducks and upland birds, and increase bird hunter recruitment. It's supported by about 22 state wildlife agencies, the North Dakota Game and Fish Department included, U.S. Fish and Wildlife Service, Winchester, Remington, and several foreign countries.

The bottom line is that we – you, me and our hunting buddies secreted away in head-high cattails with the latest and greatest in duck calls and camouflage clothing – have to become better shots.

The call to sharpen shooting skills comes from wildlife managers and others who believe anti-hunting groups will use our mistakes as ammunition to try to cripple waterfowl hunting as we know it.

According to scientific studies, 25 percent of ducks and geese hit by shotshell loads are not retrieved by hunters. Most of these birds die. This equates to more than 4 million ducks and geese struck, but not retrieved in the United States and Canada every year.

"No hunter can be proud of that," Roster said. "This is a huge problem with a huge amount of birds being impacted. You have to be callous not to care."

Mike Johnson, waterfowl biologist for the North Dakota Game and Fish Department, said the future of waterfowl hunting depends on hunters decreasing crippling rates to less than 10 percent, a mark non-hunters say they can accept.

"We need to make sure that we don't needlessly wound birds," he said. "We need to make our activity as defensible as possible, as humane as possible."

Roster, who has instructed thousands of waterfowl and upland hunters in workshops around the country, has experimented with and developed proven methods, which if implemented, can result in dropping wounding losses to less than 10 percent.

"By gaining the knowledge and developing the skills, research has shown hunters are able to get to that acceptable level," he said.

Roster said there are examples out there that should encourage hunters to take the initiative to improve their shooting skills. Most notably are the two of five states in Australia where anti-hunters, armed with waterfowl wounding-loss data, convinced voters to ban all hunting.

"If they can get rid of hunting in Australia, where just about everyone hunts, what chance do you have?" he said. "In the United States, hunters are the small minority."

Roster has helped CONSEP collect the world's most extensive pattern testing and terminal ballistics performance data on nontoxic shotshell loads for taking game birds. He's arguably the best in the business, a practiced shotgunner who has shot so many rounds over the years, it's a wonder his right shoulder is still intact.

"It was incredible to have a day with a guy like that, a guy who is probably the foremost expert on steel shot ballistics, with piles of statistics to back everything up," said Gregg Knutsen, CONSEP participant and avid hunter and biologist at Long Lake National Wildlife Refuge. "It's like learning the finer points of throwing a football from (Green Bay Packer quarterback) Brett Favre."

Roster has stood behind thousands of hunters as they fired at clay targets, using a trained eye to catch glimpses of the shooter's shot string – resembling a cloud of gnats – zipping through the air. And what he's found is that most hunters are barely competent out to about 20 yards.

Yet, the average duck hunter, according to research, is shooting at birds on average at twice the distance he or she has the skills to do so, while the average goose hunter is taking shots three times as far.

CONSEP workshop participants, with white cards and shotguns in hand, work on a technique called "subtending" to help them accurately, and quickly, estimate the range of birds.

Take a group of 20 people, Roster said, and 15 of them would commit these shooting sins:

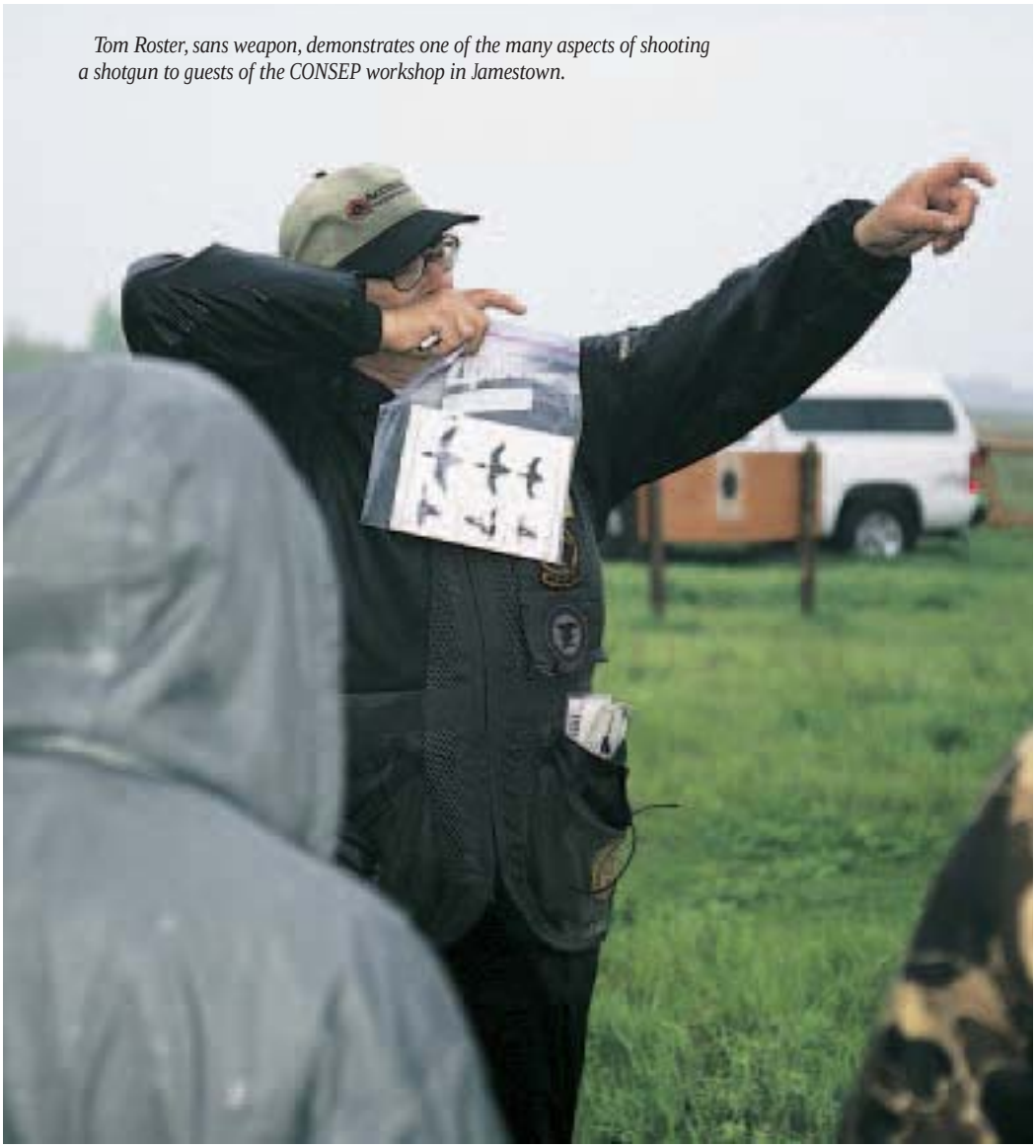
• Focus on the end of the shotgun barrel instead of the bird.
• Shoot with one eye closed, thus reducing field of vision.
• Don't keep the shotgun moving after firing a shot, which causes the hunter to shoot behind the moving target.
• The hunter lifts his head in anticipation of the shotgun's recoil or because he's anxious to see if the target was hit or not. This misstep, on crossing shots, causes the hunter to shoot above his target.
• The shooter doesn't know how much he should lead the target.

"Since they've never worked on it, they don't know what their forward allowance should be," Roster said. "They just hit the trigger and hope for the best."

If you were to sit down and think about it, you could probably come up with some ways to help trim the number of birds lost to wounding. Roster has, and he's even penned a list called "Behaviors Which Can Reduce Wounding Losses:"

• Become a skilled wingshooter by systematically and regularly practicing with the shot type to be used afield on clay targets thrown at the distances, angles, and flight speeds of the birds being hunted.
• Learn the subtending method and/or use a rangefinding device when hunting to determine distance; stop guessing.
• Use scientifically proven loads and chokes for the bird and shooting distance common to each hunt (see CONSEP Lethality Table).
• Properly pattern test chokes and loads to be sure your technology can reach the minimum pattern densities listed in the CONSEP Lethality Table.
• Avoid shooting beyond your personal maximum shooting skill distance.
• Never shoot beyond the maximum distance at which technology choices can meet the minimum pattern density standards as listed in the CONSEP Lethality Table.
• Never shoot into large flocks; whenever possible shoot only at single birds.
• If a small formation of birds comes within range, target an isolated, outside or back bird in the group.
• On waterfowl, never take going-away shots beyond 30 yards.
• When hunting wetlands always select hunting sites on open ponds; pass up all shots where struck birds may fall into heavy vegetation.

A wingshooter marks the accuracy of his shotshell fired at paper at a given distance. The purpose of patterning is to help hunters learn how to select a load and choke combination that will kill a game bird cleanly at the desired shooting distance.



Tom Roster, sans weapon, demonstrates one of the many aspects of shooting a shotgun to guests of the CONSEP workshop in Jamestown.

• Always carry and use swatter loads; dispatch wounded birds on water immediately.
• Limit shooting to two hunters per attempt; in larger hunting parties take turns.
• If you are the shooter, never take your eye from where a struck bird enters heavy cover of any type. Move rapidly to the entrance point or use hand signals to direct a fellow hunter or your dog to the entrance point.
• Use a trained dog whenever hunting upland game or waterfowl.
• Voluntarily count struck but unretrieved birds as part of the daily bag.

"If hunter's learn the distance they are skilled to shoot at and never shoot beyond it, properly pattern test their chokes and loads, and stop guessing at distances, but learn how to judge them," Roster said, "the data shows just these things will cut in half their rate of wounding."

Roster, who said the idea is to give the hunter simple tips and tactics to improve their success in the field, came up with a technique he calls "subtending," which allows hunters to accurately estimate the range of birds.

Subtending involves learning the size of the bird you are hunting relative to the size of the muzzle of your shotgun. When pointing your gun to shoot a bird, you can quickly determine whether a bird is in range, or not, by knowing how much of the bird is covered by the image of the muzzle at given distances.

The method is quick, simple and effective. "I like my birds close, but I never really knew how close," said Mark Vaniman, manager at Arrowwood National Wildlife Refuge near Pingree, who shot in the CONSEP workshop in Jamestown. "By being able to estimate ranges better with subtending, I'll be a better hunter."

Lynda Knutsen, hunter and outdoor recreation planner for Arrowwood NWR complex, said subtending will help take some of the mystery away.

"Now I should be able to shoulder my shotgun and know if the bird is within my range or not," she said.

Roster said one of the difficulties some hunters have with judging game at a distance accurately is size of the prey.

"The bigger the thing you're shooting at, the greater the illusion that it's closer to you than it really is," he said. "That's one of the problems."

And don't be fooled with big and small in terms of speed in the air, either.

"On average, waterfowl fly about 40 mph," Roster said. "And, no, teal don't fly faster than the much bigger Canada geese."

It's just the rapid wing beats of the former that makes them seem far faster than the latter.

Mike Donahue, like all the CONSEP workshop participants, shot only steel shotshells at the patterning boards and clay targets. Using strictly nontoxic loads was nothing new to the Bismarck hunter.

"I don't shoot lead, even though my main hunting is for upland game," Donahue said. "Back when steel shot became required for waterfowl, my son and I made the switch to steel for everything."

Donahue believes in the lethality of steel loads – No. 3s for pheasants early in the season, and No. 2s later in the season – that are right for his shotgun.

"Roster, and his various discussions on types of shot, just reinforced what I use in my gun," he said. "I also learned some things from him … every little bit helps. As soon as someone says they have nothing else to learn, I write them off. There's still plenty to learn."

Vaniman said Roster debunked a number of myths that still trail steel shot like a bad odor.